

Preface

The Royal Danish Academy of Sciences and Letters celebrated its 250th anniversary in 1992. It was decided that corner stones of this anniversary should be a number of international research symposia. In 1989 I proposed a symposium on 'Fundamental Processes in Sputtering of Atoms and Molecules' (*SPUT92*) which was accepted by the academy board and received with enthusiasm by the scientific community. Due to limited space in the academy building, participation was by invitation only.

SPUT92 was held from 30 August to 4 September 1992 with 82 registered participants. The program consisted of invited summary lectures as well as oral and poster contributions on current research. In addition, a public session was arranged in which six specially invited lecturers reported on applications of sputtering.

Summary lectures were planned to represent the state of the art in research on fundamental processes in sputtering. In particular, major developments since the appearance of the monographs edited by R. Behrisch in 1981-83¹ were intended to be covered in these lectures as well as the written records. Speakers were given a generous deadline to submit manuscripts without tight limitations on length. I am glad to note that most invited speakers were able to set aside the necessary time and labor. All contributions were vigorously refereed, and there was given generous time for major and minor revision. As a result, I believe that the present volume fulfills the above goal as well as can be expected.

Authors were not asked to write tutorials for novices in the field, but many of them provided self-contained presentations that can be read without excessive recourse to earlier literature. Nevertheless, there is a certain amount of ground knowledge that may be difficult to identify and to extract for a newcomer. I have therefore written a brief introduction to sputtering as a reading help for those who wish to use this book as an introductory text. That chapter is the only contribution that is not based on a lecture presented at *SPUT92*.

Original research contributions reported at *SPUT92* have not been included in this volume. Authors were encouraged to submit their papers to a special topical issue on Fundamental Processes in Sputtering which has been published recently².

I received generous help from numerous individuals and organizations in working on the symposium and this publication. I like to mention first of all the staff of *SPUT92*, Karen Cauthery, Pia Sigmund, Mads W. Sckerl, and Ole Vorm, the staff of the academy, Pia Grüner, Ella Mortensen, Else Løvdal Nielsen, Henrik Caspersen, and Jørgen Maes, the members of the organizing committee, H. H. Andersen, P. Roepstorff, J. Schou, and B. U. R. Sundqvist, and the members of the international advisory committee, F. Besenbacher, G. Betz, W. Heiland, Y. Le Beyec,

¹These volumes are currently out of print but will be available again shortly.

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Peter Sigmund

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